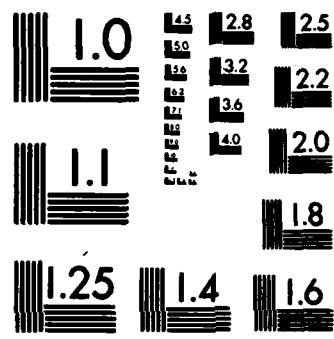


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IN POOL 5 OF THE UPPER MISSISSIPPI RIVER(U) CORPS OF
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AN ARCHAEOLOGICAL SURVEY OF TWO
PROPOSED CHANNEL CUTS IN POOL 5 OF
THE UPPER MISSISSIPPI RIVER



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U.S. ARMY CORPS OF Engineers
St. Paul, Minnesota

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On 22 June 1978, the author conducted an archaeological survey of two proposed side channel cutting projects. Located in the central portion of Pool 5 of the Upper Mississippi River, the area lies between 746.9 and 749.4 miles above the mouth of the Ohio River. The side channel cuttings are to be made in the Kruger Slough area and on Island 42 (see Maps 1 and 2).

Both sites lie in the floodplain and river bottoms of the Upper Mississippi River, within the riverbed of the glacial River Warren. Neither site has received much development or deposition of dredged material. Cattle graze several hundred meters to the north of the Kruger Slough site. Much of the area is covered with floodplain forest land, dominated by maple, cottonwood, willow, and elm. The understory includes poison ivy, wild grape, virginia creeper, and red osier dogwood (U.S. Army Corps Report, 1978). The local fauna is varied and diverse, including a range of aquatic, terrestrial, and avian species.

Previous Archaeological Work

No archaeological sites have thus far been reported for the proposed right-of-ways. However, because the area was a hardwood forest and grassland prior to the construction of Lock and Dam 5, it has at least the potential of containing aboriginal archaeological sites or historic ones, perhaps relating to the timber industry.

Methods

Because both sites were covered with fairly dense vegetation, shovel testing was necessary for a proper evaluation of their archaeological potential. Test units were located approximately every 15 meters. The exact locations were dictated in some cases by the presence of very wet conditions of surface water. The test units were a minimum of 50 x 50 cm in size. Careful note was taken of the soil horizons and the units were excavated down to groundwater.

Island 42

Island 42, 560 acres in size, is located on an eastern side channel of the West Newton Chute, approximately 0.57 miles due west of the main channel. The proposed cut is located in the NW 1/4 of the NW 1/4 of the NE 1/4 of Section 5 of Minneiska Township, T109N, R9W, on the border with Section 32, T110N, R9W, Wabasha County, Minnesota (see Map 2). The proposed right-of-way is approximately 50 meters long, 2 meters wide, and 1 meter deep. The elevation is approximately 660-670' above sea level.

At the present time, Island 42 is covered with open stands of hardwoods, many showing evidence of flooding. The understory includes considerable amounts of poison ivy (see Plates 1 and 2). The proposed cut will run almost entirely through a shallow gulley, largely filled with water. Test units were therefore excavated to one side of this gulley. The three test units might be summarized as follows:



**Plate #1 - West Bank of Island 42 in the Vicinity of the
Proposed Right-of-Way**

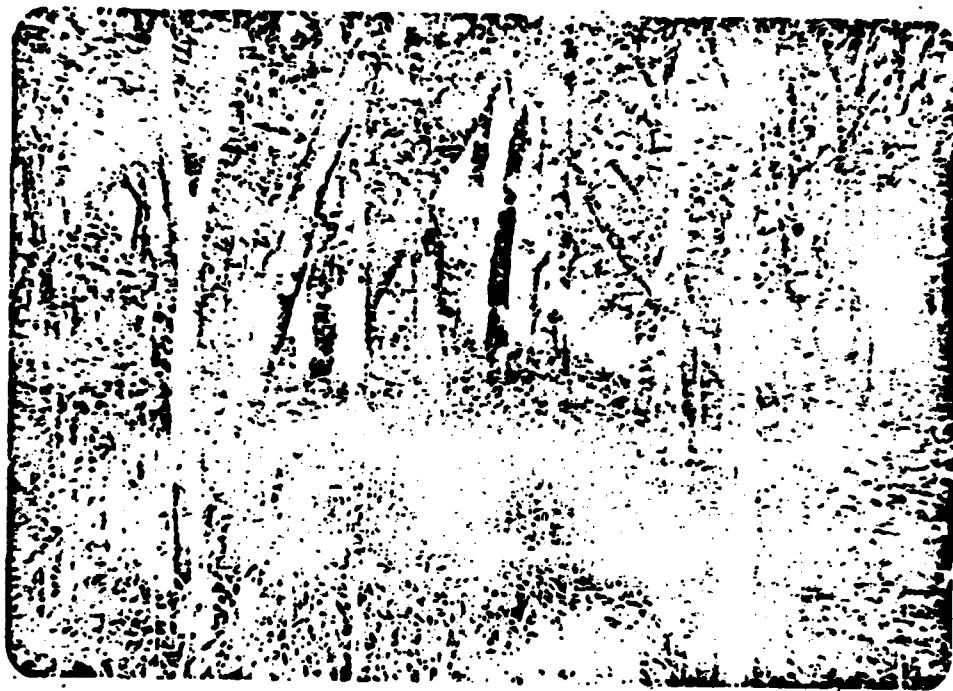


Plate #2 - A Portion of the Proposed Right-of-Way on Island 42

T#1 (approximately 15 meters from eastern terminus of cut) size:
60 x 60 cm.

Soil profile: 0-7 cm sand with organic stains
7-13 cm lens of light brown sand
13-40 cm darker sand mottled with iron oxides
40-60 cm+ wet, brown sand
groundwater at 58 cm deep

T#2 (approximately 15 meters west of T#1) size: 50 x 50 cm

Soil profile: 0-15 cm sand with organic stains
15-50 cm+ brown sand
groundwater at 43 cm deep

T#3 (approximately 10 meters from western terminus of cut) size:
50 x 50 cm

Soil profile: 0-20 cm sand with organic stain
20-50 cm+ gleyed sand
groundwater at 49 cm deep

No archaeological materials were recovered from the test units.

Kruger Slough

The Kruger Slough area is approximately 160 acres in size. It lies approximately 0.2 of a mile due east of the west bank of the main channel in the SW 1/4 of the NE 1/4 of the SE 1/4 of Section 9, Minneiska Township, T109N, R13W, Wabasha County, Minnesota. The proposed right-of-way is approximately 85 meters long, 2 meters wide, and 1 meter deep. The elevation is approximately 665' above sea level.

At the present time, the area is covered with open stands of hardwoods. These trees and the accompanying undergrowth show considerably fewer effects of flooding than did those on Island 42 (see Plate 3). The understory consists primarily of long grasses and small saplings. The proposed cut will run across a seasonal pool which rendered testing approximately 20 meters of the area infeasible.

A total of four test units were excavated in the proposed channel cut area which may be summarized as follows:

T#1 (approximately 15 meters from western terminus) size: 65 x 55 cm

Soil profile: A₁ Horizon 0-28 cm - sandy clay loam
C Horizon 28-55 cm+ - sand
groundwater at 52 cm deep

T#2 (approximately 15 meters east of T#1) size: 70 x 55 cm

Soil profile: A₁ Horizon 0-19 cm - sandy clay loam
C Horizon 19-70 cm+ - sand
groundwater at 65 cm deep



Plate #3 - A Portion of the Proposed Right-of-Way on Kruger Slough

Tf3 (on western edge of seasonal pool) size: ~70 x 55 cm

Soil profile: 0-19 cm - sand with organic stain
19-55 cm+ - gleyed sand
groundwater at 50 cm deep

Tf4 (approximately 10 meters from eastern terminus) size: 60 x 60 cm

Soil profile: 0-16 cm sand with organic stain
16-20 cm lens of brown sand
20-26 cm sandy clay loam
26-38 cm light brown sand
38-68 cm dark brown sand
68-79 cm+ light brown sand with some iron oxides
groundwater at 77 cm deep

The presence of a developing Al Horizons in test units 1 and 2 is interesting. These horizons do not appear to be related to the underlying C Horizons of lighter sand. The Al Horizons also do not evince any lensing from periods of deposition due to flooding. These horizons may be explained by the somewhat higher elevation of the Kruger Slough area in the vicinity of the proposed channel cuts, which allowed for the development of a horizon through deposition and the accumulation of organic material, relatively unhindered by at least recent flood activity.

No archaeological materials were recovered from the test units.

Summation and Recommendations

An archaeological survey was conducted on two small channel cutting sites in Pool 5 of the Upper Mississippi River. Test units yielded no archaeological materials, aboriginal or historic, in the proposed right-of-way. Evidence indicating repeated flooding of Island 42 and lesser flooding of the Kruger Slough area also lessens their potential as archaeological sites. Thus, the author concludes that the cutting of the channels will not constitute a threat to the archaeology of the area.

Curation

No archaeological materials were recovered. Field notes are curated by the author at the St. Paul District Office, U.S. Army Corps of Engineers.

Island 42 and Kruger Slough

— Side Channel
Openings —

Island 42
Opening sites

• Pool 5
Mississippi
River •

WEST NEWTON CHUTE

MISSISSIPPI

MAIN

CHANNEL

WISCONSIN

MINNESOTA
WABASHA
COUNTY

Kruger Slough
Opening Site

WEAVER BOTTOMS

LOST
ISLAND

BUCKS

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**1978 Open Access at Two Back Channels at Kruger Slough, R.M. 746.9,
at Island 42, R.M. 749.4, Mississippi River.**

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